

Biomes of the World

Ecosystems and their inhabitants

Project Summary: For this chapter, we will be exploring energy roles, energy pyramids, and biomes. We will focus on how energy is transferred through a biome and what organism's are involved. As ecologists, it is important to explore different ecosystems and biomes to understand the interactions of the organism's there and the transfer of energy within the ecosystem. For this chapter, you will design an ecosystem based on a biome of your choice. When you choose your biome, be sure to be specific. Some examples include the rainforest of the amazon, or the Alaskan Tundra. The ecosystem should be done in one of the following options: on a poster, as a 3d design, or in digital format. You can do this on your own, or with a partner. Your project will have to meet the following requirements:

1. a title for your ecosystem (example: The Rain forest of Brazil)
2. at least 4 producers clearly labeled (example: Oak Tree – common names are acceptable)
3. at least 3 first level consumers clearly labeled
4. at least 2 second level consumers clearly labeled
5. one third level consumer clearly labeled
6. at least 3 abiotic factors clearly labeled
7. an accurate design of the biome, not guesswork.

Your project will also have to include a written assignment that will express two key concepts. The first concept is how does energy move through the biome in terms of an energy pyramid and what are the energy roles that take place in your biome. The second key concept is to give an argument as to why your biome is better than all of the other biomes, with at least two examples of evidence to back up your argument.

Examples of Biomes

- Rainforest of Amazon
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- Alaskan Tundra
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- Sudan Savanna
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- Sonoran Desert

Rubric:Project

Project Contents (10 points)	1. Includes the title of the biome 2. All items are clearly labeled 3. Student name is present
Energy Roles (5 points)	All producers, consumers and abiotic factors are present and clearly labeled.
Design	The biome is accurate and closely resembles an actual biome. Poster: 8 points 3d or digital design: 10 points
Format (5 points)	Neat, organized with headings, few spelling/grammar error

Project Sub Score: _____

Written Essay

- 1) How does energy move through the biome in terms of an energy pyramid and what are the energy roles that take place in your biome. Includes complete description of the energy pyramid and the energy roles each organism has.

_____ / 10 Points

- 2) An argument as to why your biome is better than all of the other biomes, with at least two examples of evidence to back up your argument.

_____ / 10 Points

Written Sub Score: _____

Total Score: _____